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Report Prepared for the Research Division
Royal Commission on National Passenger Transportation

***Regulatory Reform in the Intercity Bus Industry:
An International Comparison***

Hickling Corporation
September 1991

RR-06





Opinions expressed are those of the
authors and not necessarily those of
the Royal Commission on National
Passenger Transportation.

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ROYAL COMMISSION ON PASSENGER TRANSPORTATION

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The section concludes with a summary of the key areas and issues associated with regulatory change in the industry, which often prevent the full benefits of Section IV's promotion of pro-competition reform. Impacts are measured in terms of industry structure (including competition and concentration), fare levels, financial conditions and network and level of service, often including greater differentiation services to small communities and other unprivileged groups. The final section contains the broad lessons from British experience for regulatory change in Canada.

I. INTRODUCTION

The United States and Britain regulated their intercity bus industries within five years of one another and deregulated them half a century later within a span of 22 months. In each case, the economic motivations were parallel, the social issues similar and the outcomes analogous. The experience of these two nations thus offers useful insights for the Royal Commission in its consideration of regulatory policy options for the Canadian intercity bus industry. Experience in Australia also presents the Commission with useful evidence. In that nation, the intercity bus industry has been free of economic regulation for interstate service since 1954 whereas substantial exit, entry and fare controls apply to intrastate services. A comparison of fares and service quality between interstate and intrastate intercity bus operations in Australia thus offers potentially constructive, though indirect, indications of the possible impacts of deregulation.

PLAN OF THE PAPER

This paper focuses on the impact of recent changes in the intercity bus regulatory regimes of the United States and Britain; conditions in Australia are also explored. The paper is presented in six sections. Section II summarizes the early economic motivation for regulation and the factors that later motivated regulatory reform. Section III then presents the salient features and objectives of regulatory reform in Britain and the United States. The section concludes with a summary of the key issues and concerns associated with regulatory change in the intercity bus industry which in-turn provides the basis of Section IV's examination of post-deregulation impacts. Impacts are reviewed in terms of industry structure (including competition and concentration); fare levels; financial condition; and network and level of service effects (including product differentiation, service to small communities and effects on disadvantaged groups). The final section explores the broad lessons from foreign experience for regulatory change in Canada.

II. ECONOMIC AND POLICY MOTIVATION OF REGULATION

Regulation in both the United States and Britain was premised on a number of economic assumptions, many of which are now widely held to be erroneous. The legislative debates surrounding the U.S. Motor Carrier Act of 1935 and Britain's Road Traffic Act of 1930 focused on the belief -- without the support of sound empirical evidence -- that the industry was a "natural monopoly." Moreover, intercity bus pricing practices were believed to be inherently unstable. The non-regulated environment was widely visualized as one of destructive competition, frequent bankruptcies, wide fluctuations in fares, unpredictable service quality and an unstable geographic distribution of service. Without regulation, legislators believed that intercity buses would fail to serve the public interest.

By enacting the Motor Carrier Act of 1935 and the Road Traffic Act of 1930, the U.S. Congress and the British Parliament (respectively) each sought to ensure order and stability in the industry. In the U.S., the Motor Carrier Act had as its goals:

- o Ensuring sound operating conditions;
- o Maintaining adequate services at reasonable rates and fares;
- o Promoting cooperation among state and federal regulatory agencies;
- o Preserving services considered to be in the public interest; and
- o Encouraging a level of profitability sufficient to promote the industry's development and expansion.

Although the British legislation was brought about in part as a device to improve safety standards, it too focused on the objective of stability in the industry and the development of a comprehensive network of services to meet social as well as commercial criteria.

To achieve its policy goals, the U.S. legislation gave the Interstate Commerce Commission (ICC) considerable power over the operations of bus operators in three areas -- market entry; fares; and mergers. Price competition among bus operators was restricted even further in 1948 when the Congress granted bus companies antitrust immunity to set fares collectively. While bus carriers were allowed to set their fares independently, they rarely did so.

The ICC's control over market entry was thus the primary mechanism used to restrict competition.

The same was true under the British regulatory regime. The country was divided into so-called "Traffic Areas" each with a licensing system administered by Traffic Commissioners. When considering a license application, the Commissioners were required to take into account:

- o The suitability of the routes on which a service may be provided under the license;
- o The extent, if any, to which the needs of the proposed routes are already adequately served;
- o The extent to which the proposed service is necessary, desirable and in the public interest;
- o The needs of the area as a whole in relation to traffic (including the provision of adequate, suitable and efficient services, the elimination of unnecessary services and the provision of unremunerative services); and
- o The coordination of all forms of passenger transportation, including transportation by rail.

As a result of legislation in both nations, entry into and exit from particular services proved extremely difficult. Both the U.S. and the U.K. Commissioners forced high levels of cross-subsidization (by route, by distance and by time of day) as bus companies were frequently required to offer unprofitable services in order to obtain the rights to more lucrative ones: In both nations, operators had to be seen to be "preserving the public interest" (in the U.S.) and its U.K. equivalent of "meeting the needs of the area as whole."

Finally, it is important to note a unique feature of the U.S. regulatory experience that proved to be a crucial issue in the debate over regulatory reform. Many intercity bus operators faced strict state regulation of their intrastate fares and services. A bus moving across state lines frequently carries many passengers who are travelling only within the boundaries of one state, thus making the vehicle subject to both federal and state regulation. Regardless of federal regulations, state restrictions on entry, exit and service frequency, combined with slow action by state regulatory agencies on fare increases, often resulted in low profits for most intercity bus operators. As discussed later, the power of state regulatory decisions to influence interstate bus operations meant that without some degree of federal preemption of state regulatory authority, regulatory reform at the federal level would be largely meaningless. It is interesting to note that due to the problems associated with state regulation of interstate bus operators, the bus industry generally supported deregulation. By contrast, the trucking industry, which did not face analogous problems, largely opposed deregulation (especially the larger carriers).

Initiated at the state-level in the 1920s, regulatory action in Australia was seen as a means of controlling exit, entry and fare levels so as to protect the financial viability of publicly-owned railways from a rapidly expanding road sector. In 1954, however, the states' powers to regulate interstate road transport were successfully challenged in the High Court. Since then, all interstate bus services have been free of economic regulation. Economic regulation at the state level still applies to intrastate services.

III. ECONOMIC AND POLICY MOTIVATION OF REGULATORY REFORM

Increasingly over the years, more analysts, including those within the intercity bus industry, began to view regulation as a direct barrier to responding effectively to decreasing demand for regular-route passenger service. In Britain, demand weakened as a result of competition from the automobile and the railways. In the United States, airline travel made steady inroads on the intercity bus market as well. The immediate aftermath of airline deregulation in 1978 created a situation in which fares on longer haul and many short haul routes put very substantial strain on a bus industry already in decline. As well, regulatory regimes were rigid in their interpretation of what constituted a bus service. This was seen by many industry observers and participants to limit operators' scope to innovate, to differentiate their product and to engage in various forms of non-price competition. Ultimately, it was the survival of the bus industry, and thus the future of a major component of the passenger transportation system in both nations, that became the overriding motivation for regulatory reform. Unlike the politics of deregulation in the trucking industry, bus operators in both Britain and the U.S. supported reform, although different approaches were favoured depending upon the business structure and network operations of the company in question (see later).

A wide range of studies were conducted to investigate the case for regulatory reform, focusing principally upon three areas:

- o Existing industry structure and operations;
- o Experiences in deregulated environments; and
- o Problems with state regulation (United States only).

INDUSTRY STRUCTURE AND OPERATIONS

Studies of industry structure prepared by the U.S. Department of Transportation and the academic community supported total deregulation. Academic research in the United States

showed that there are no significant economies of scale in bus operations. This set aside the earlier (largely untested) belief that the industry was a natural monopoly and encouraged policy makers to view competition as the means of securing the most efficient and socially acceptable intercity bus transportation system.¹ Similarly, an Australian review conducted in the mid-1980s² finds that no effective economies of scale appear to exist in the interstate bus industry; indeed, the Australian review concludes that there are no conditions present in this sector that would justify government regulation (see later).

British research supports these findings. As in most public bus operations, the cost of providing a seat-mile of service falls with the capacity of the bus in use.³ There are thus economies of scale to be gained from using larger vehicles. Such economies do not, however, constitute a barrier to market entry since buses are found to be readily available both in terms of purchase or in terms of transferring from other services.⁴ Thus while certain types of scale economies are found to exist, they are not seen to present restrictions on free entry or exit from the market. (Exit is facilitated by the ability of any operator to transfer vehicles to other services should profits not be forthcoming on existing ones.)

Academic research in the U.S. also signified that while a high proportion of routes were served by only one bus operator because of ICC entry restrictions, many routes were

¹ Frederic D. Fravel and others, *Economies of Scale in the U.S. Intercity Bus Industry*, University of North Carolina for the U.S. Department of Transportation, July 1980 (and) Mandex Inc., *Economic Concentration in the Intercity Bus Industry*, July 1981 (for the U.S. Department of Transportation).

² Federal Bureau of Transport Economics, *Australian Long Distance Coach Industry Review*, Occasional Paper 74, Canberra 1985.

³ The early work in this area was pioneered by F.W. Webster, *A Theoretical Estimate of the Effect of London (Long Distance) Car Commuters Transferring to Bus Travel*, Crowthorne, Road Research Laboratory Report LR 165, 1968. The result has since been borne out empirically.

⁴ K.J. Button (Loughborough University) and A.D. Pearman (University of Leeds) *The Contestability of the U.K. Intercity Bus Market*, Paper presented at the 1985 Annual Meeting of the Transportation Research Board.

capable of supporting more than one carrier.⁵ The significance of this finding is reinforced by research findings in both nations into the essential "contestability" of the intercity bus industry. The theory of contestable markets argues that under certain conditions -- notably (a) that potential entrants have access to all production techniques available to incumbents, including terminals, reservation systems and other "sunk cost" facilities; (b) that potential entrants are not prevented from trying to attract the incumbents' customers; and (c) that entry decisions may be reversed without costs -- socially acceptable (ie, efficient) price and service levels will arise with only one active firm in the market. Simply stated, if the essential conditions prevail, the fear of potential entry into the market by a new entrant will discipline the existing supplier from reaping abnormal profits; in the jargon of economics, fares will be set to ensure that they equate with "marginal cost" (ie, are socially efficient).

Evidence forthcoming from the United States indicates that many transport markets are, by their nature, essentially contestable⁶, a finding which itself has been used to offer an intellectual underpinning for deregulation throughout the industry (trucking, rail, airlines and intercity bus). In other words, regulatory reforms have been structured in ways that would be expected to maximize social welfare in a contestable market; restrictions on price and market entry have been largely removed, small firms may enter the market with no greater legal impediment than large ones, and there is extensive intermodal competition on a broadly equitable basis (note however that while British Rail is committed to the operation of intercity services on a commercial basis and has the pricing freedom to do so, Amtrak in the United States remains subsidized over a number of routes).

Theoretical and empirical evidence reviewed by British researchers indicates that the essential conditions of contestability are largely in place in the intercity bus industry, but with certain important exceptions regarding particular "sunk costs." New entrants to the

⁵ ibid.

⁶ E.E. Bailey and J.C. Panzar, *The Contestability of Airline Markets During the Transition to Deregulation*, *Law and Contemporary Problems*, Vol. 44, 1981, pp 125-145.

British market, for example, frequently encountered difficulty in obtaining suitable terminal sites and pick-ups often had to be at un-marked curbside locations or hotels. Several operators in London had to use temporary facilities at unused railway yards. Ticketing posed similar problems, largely because of the lack of established agents. Certainly this problem precipitated some innovation, including on-board payment schemes which allowed new entrants a greater degree of flexibility. Nevertheless, according to one study the necessary infrastructure in Britain was under the control of incumbent operators and access proved generally difficult for newcomers as a result. From a public policy perspective, sunk costs were seen to act as an impediment to competition following regulatory reform in 1980 and thus offered scope for some degree of monopoly exploitation by the established bus companies (principally National Express, the publicly owned operator).

Another kind of sunk cost, usefully termed "economies of experience," would also violate the conditions of contestability and give existing carriers a competitive edge on new entrants. Deregulation conveys freedom to compete with established operators but not necessarily in a virgin market where all suppliers are new.

In sum, the British evidence indicates that, with suitable policy measures in place to control sunk costs under private control (terminals, reservation systems and so on), liberalization of pricing and entry meet the requirements of maximizing efficiency and social welfare in the largely contestable intercity bus market.

An empirical test of contestability was conducted by two British researchers⁷ who used simple regression analysis to examine post-deregulation fare differentials on routes with and without more than one carrier. They concluded that fares were determined almost entirely by mileage (the proxy for cost used in the regression analysis) and were unaffected by the presence or not of actual competition. The evidence is indicative of contestability in that single carriers were not found to be exploiting their position, in theory due to the potential of competition if they were to do so.

⁷ op. cit, Button and Pearman (page 19).

To be sure, the British study in question is insufficient to rule out cartel as a possible explanation of its findings. On the other hand, the recent Australian review⁸ of interstate bus service in that country concludes that sunk costs are a relatively small proportion of total costs. The Australian study asserts that even on comparatively thin routes, "the threat of entry forces operators to price competitively ... making predatory pricing a costly and ineffective strategy".⁹ Although the Australian conclusions suffer similar weaknesses to those of the British study, the weight of available evidence indicates that the presence of sunk costs in itself is unlikely to be a barrier to successful regulatory reform.

EXPERIENCE IN DEREGULATED ENVIRONMENTS

Principally in the United States, analyzing how bus companies performed in less regulated environments was an important element of the research effort preceding regulatory reform. The early results of deregulation in Florida, where intrastate truck and intercity bus transportation were deregulated in 1980, were scrutinized by both the ICC and the U.S. Department of Transportation. Their studies found that deregulation had brought about more competitive pricing and enhanced services, especially charter services.¹⁰ In testimony before the Senate Commerce Committee, Florida Congressman George Sheldon stated that, "deregulation of the bus industry has benefited the public far more than regulation ever did."¹¹ Congressman Sheldon also noted that deregulation had brought about improved service and reduced fares.

⁸ op. cit, Bureau of Transport Economics, page 92.

⁹ op. cit, Bureau of Transport Economics, page 72.

¹⁰ Karen L. Borlaug and Edward H. Rastatter, *Deregulation and Intercity Bus Operations in Florida: A Preliminary Study*, U.S. Department of Transportation, March 1981 (and) Interstate Commerce Commission, *Commission Studies of Florida Motor Carrier Deregulation: An Interim Report*, Office of Policy Analysis April, 1981.

¹¹ United States Senate, Committee on Commerce, Science, and Transportation, Surface Transportation Sub-Committee, *Deregulation of the Intercity Bus Industry*, Hearing No. 97-100, March 8, 1982.

Whereas studies conducted in the United States helped motivate regulatory reform, studies in Australia concluded that regulating the existing unregulated interstate sector would be detrimental to the public interest. In its 1985-review, the Federal Bureau of Transport Economics concludes that regulated intrastate services give rise to higher fares in markets where competition is weak. By contrast, the period 1980 to 1985 witnessed important improvements in unregulated interstate markets, including declining real fare levels; an expansion in the number of competing firms; more frequent services and a wider route network; and improved levels of passenger comfort. These trends followed a period of industry concentration at the interstate level during which two operators largely dominated the market. According to Bureau analysis, growth in the 1980s fostered by road improvements, general economic conditions, and demographic trends, attracted new entrants which, through competition, drove prices down and service quality up.

PROBLEMS WITH STATE REGULATION

In a recent review of regulatory reform, ICC Commissioner Karen Borlaug Phillips (also Vice Chairman of the ICC) notes that burdensome state economic regulation affected interstate bus operations and profits.¹² She goes on to state that:

DOT studies and the testimony of numerous bus companies persuasively argued that because of the reluctance of state regulatory authorities to allow bus operators to increase their fares, carriers often were forced to cross-subsidize their intrastate operations with profits from their interstate routes. States also tended to refuse to allow carriers to exit or reduce their service on unprofitable routes. Given the industry's overall marginal level of profitability, pervasive competition from the private automobile and, to a lesser extent, from rail and air carriers, the bus industry was unable to continue to subsidize its intrastate operations.

¹² Karen Borlaug Phillips, *Intercity Bus Deregulation: Origins and Consequences*, Transportation Practitioners Journal, March, 1989.

Not all parties agreed with the view outlined above during the debate over regulatory reform. State regulatory agencies, represented by the National Association of Regulatory Utility Commissioners (NARUC) opposed any attempt to weaken the authority of state commissioners over the intrastate operations of intercity bus operators, fearing that state commissions would be placed in a subservient position to the federal ICC. NARUC argued that federal preemption would lead to unreasonable fare increases and a general decline in bus service.¹³

A federal-state issue presents itself in Australia where interstate buses have restricted pick-up and drop-off rights on intrastate portions of their routes. The Federal Bureau of Transport Economics concludes that certain regional markets suffer as a result. According to Bureau analysis, some places that are not served or served with low frequency service could be served with bus services based on the excess capacity of interstate routes. Although a case for federal preemption of state action might arise from the Bureau's report, no explicit policy recommendations were made.

¹³ Testimony of the National Association of Regulatory Utility Commissioners before the United States Senate (March, 1982).

IV. REGULATORY REFORM

Although research in both the United States and Britain was supportive of total deregulation in both nations, the final legislation -- though substantial in terms of reform -- fell short of that outcome. The British approach went further than the U.S., particularly with regard to express bus services.

The most prominent features of the U.S. Bus Regulatory Reform Act of 1982 include:

- o Making it easier for applicants to receive authority for new scheduled or charter service;
- o Giving carriers greater freedom to set fares independently. Since November 30, 1985, the ICC can no longer regulate rates independently;
- o Eliminating antitrust immunity for some collective ratemaking (single-line and joint-line movements); and
- o Allowing ICC preemption of State action on abandonment and rate decisions.

The 1982 Act left in place:

- o The requirement that new service applicants apply to, and be certified by, the ICC;
- o Antitrust immunity for the bus industry to discuss general and promotional fare changes; and
- o ICC authority to regulate collective ratemaking.

The 1982 Act included a range of transition elements, with the majority of its provisions not becoming effective until sixty days after the legislation was enacted. In recognition of the need to allow time for the industry to adjust to regulatory reform, the Act contained provisions that were designed to provide the needed adjustment period. ICC Commissioner and Vice President Karen Borlaug Phillips¹⁴ outlines these provisions as follows:

- o **Preemption of state entry authority.** Section 6 requires the ICC to grant intrastate regular-route authority on routes over which the carrier has interstate authority if the carrier is fit, willing, and able, unless the ICC finds that the proposed service is not consistent with the public interest. This provision applied to carriers receiving interstate authority after the effective date of the legislation. For carriers already holding interstate authority, the same fitness test applies, along with an added condition that the proposed service not have a "significant adverse effect" on commuter bus service in the relevant market;

- o **Collective Ratemaking.** Section 10 restricts the bus industry's ability to set regular-route fares collectively in two phases: antitrust immunity for single-line fares was eliminated January 1, 1983, while immunity for joint-line fares ended January 1, 1984. The industry retains immunity, however, for general rate changes, broad changes in tariff structure, promotional or innovative fare changes, or administrative functions, such as publishing tariffs. (Antitrust immunity was eliminated immediately for carriers providing charter and special services). In its 1984 report, the Motor Carrier Ratemaking Study Commission recommended that antitrust immunity for all collective ratemaking be eliminated.

¹⁴ op. cit.

- o **Exit/Service Reductions.** Section 16 makes it easier for bus operators to exit markets on the intrastate portions of abandoned interstate routes. If operating authority was granted on or before August 1, 1982, the ICC must allow the carrier to exit the market unless it is not "consistent with the public interest" or when continuing to provide the service "would not constitute an "unreasonable burden" if interstate and intrastate revenues from the service under "reasonable pricing practices" are not less than the variable cost of providing the service.¹⁵

Interviews with officials of the Congressional Research Service¹⁶ indicate that ICC decisions overwhelmingly have preempted State decisions in favour of carrier requests for abandonments and higher fares. This ICC policy has greatly weakened State regulation of intercity bus service and fares. Also since deregulation, the ICC has approved almost every application for new service authority, causing some to question the ICC's approval standards.

The key feature of regulatory reform under the British Motor Carriers Act of 1980 relates to the road service licence. First, the legislation re-classified types of bus transport with a view to permitting greater product differentiation and diversity. Second, it makes it easier to obtain licences in general and limits the power of the Commissioners to impose conditions. The exemption of express services from road service licensing is of considerable importance. The definition of such services under the Act is couched in terms of the distance every passenger travels -- this must exceed 30 miles. In effect, long

¹⁵ The burden of demonstrating these findings is on the party opposing the service reduction. For service authorized prior to August 1, 1982, the burden is on the carrier seeking to discontinue service. In such cases, the ICC is to "accord great weight" in its decision making process to the extent to which interstate and intrastate revenues are less than the variable costs for providing such transportation, including depreciation for equipment.

¹⁶ Interview with John Fischer, Congressional Research Service, June 18, 1991.

and medium distance intercity bus transportation is no longer subject to entry and exit regulation, although operators are still required to provide Commissioners with details about their services.

A range of objectives and concerns arose in the debate over regulatory reform in both the United States and Britain, including its possible effects on:

- o Industry structure, particularly concentration and competition;
- o Fare levels;
- o The financial health of the industry; and
- o Network coverage and the level of service, including product differentiation, service to small communities and effects on transportation-disadvantaged groups, such as the poor and the elderly.

Apart from the regulatory controls retained in the legislation, however, both the U.S. and Britain embraced a wait-and-see attitude rather than a web of special safety nets. Unlike the case of airline deregulation, for example, the U.S. Congress did not build subsidy protection for small communities into the Act, even though many expressed the fear that many small and rural places, for which bus transportation is often the sole means of public intercity travel, would likely lose service. Instead, Congress took the view that small town protection is a State rather than a federal responsibility and elected to omit any form of special protection. Many of course favoured special protections and waited anxiously to assess the outcomes of reform.

As indicated earlier, no major changes have been initiated in Australia, this being consistent with the findings of the 1985 review discussed above. Some experimentation with eased entry and exit controls in the intrastate sector has been conducted, the impacts of which are outlined as part of the following Chapter.

IV. IMPACTS OF REGULATORY REFORM

The principal objectives of regulatory reform and the chief concerns that arose in during the reform process provide the criteria against which its impacts can most instructively be assessed. Most observers believe that reform is having the desired effects. To be sure, there have been some reductions in the availability of intercity bus transportation to small communities and transportation-disadvantaged groups and in the U.S. the industry faces serious financial problems. Most analysts believe however that on all counts the intercity bus transportation system is offering better service, to more places and with stronger profits than it would in the absence of regulatory reform.

INDUSTRY STRUCTURE

United States

Between November 1982 and May 1990, more than 7,400 applications have been filed by new and existing firms for regular-route and charter operating authority. A total of 5,600 of these were filed by new applicants. Approximately 13 percent of these applications seek regular-route authority.¹⁷

The number of ICC-regulated bus companies rose from some 1,300 in 1980 to more than 3,600 in 1989. It would appear therefore that the post-deregulation industry will continue to be made up of a large number of independent operators. The majority of these operators provide charter, commuter, and special operations services.

This significant increase in the number of U.S. operators masks, however, considerable concentration in the regular-route "Class I" segment of the industry since deregulation. In March 1987, amid declining ridership and serious labour disputes, the Greyhound Corporation sold Greyhound Lines to GLI Holding Company. Later that year, citing Trailways' deteriorating financial condition, GLI petitioned the ICC for authority to

¹⁷ Interstate Commerce Commission.

purchase the operating rights and assets of Trailways. In the Spring of 1988, the ICC authorized GLI to purchase the interstate and intrastate operating rights and principal operating assets of Trailways Lines and Trailways' 50 percent interest in Continental Panhandle Lines.

From a competitive standpoint, the Greyhound-Trailways merger would appear threatening, since Greyhound now provides the vast majority of interstate regular route service. In 1989, Greyhound accounted for some 85 percent of the revenues generated by the Class I intercity bus companies. Greyhound now provides the only intercity transportation in 9,000 of the approximately 9,500 markets it serves. Thus far however, anticompetitive practices have not been found to occur. The legislation's entry provisions make it possible for other carriers to enter markets now served exclusively by Greyhound and the essential contestability of the market appears to be preventing market abuse. As well, by ensuring that carriers can abandon unprofitable service, the ICC believes that the legislation encourages the introduction of new, innovative services (see "network" effects below).

Britain

In Britain, the immediate effect of regulatory reform was a considerable reorganization within the express bus sector. Six major private companies combined to form a consortium, British Coachways, offering services from London to a range of major destinations. The consortium was intended to provide a major competitor to the publicly owned National Express, embracing the activities of the National Bus Company (in England and Wales) and the Scottish Bus Group.

After about four years of deregulation, however, the major market supplier -- National Express -- has become, once more, a monopoly supplier on many routes where private operators had, in 1980/81, initially offered new service. Others now offer joint services with National Express. Further, British Coachways suffered a succession of companies withdrawing and by January 1982 had essentially collapsed.

Though very limited in scope, experimental experience in Australia is consistent with the results recorded for the United States and Britain. To help identify the effects of an improved competitive environment, the state of New South Wales initiated a six month trial (ending May, 17 1987) during which the regulation of entry, exit and fares was substantially eased on intercity bus routes along the Sydney-Canberra and Sydney-North Coast corridors. Daily services increased by a factor of eight and the number of participating firms by a factor of four.¹⁸ These outcomes need to be regarded with caution. Various restrictions applied, such as minimum trip-lengths (to protect certain stage bus and rail services) as well as certain geographic constraints. As well, New South Wales had granted pick-up and drop-off rights for intrastate segments of interstate services. From the viewpoint of fare and service impacts, however, the results of the experiment are broadly consistent with British and U.S. experience.

FARE LEVELS AND FINANCIAL HEALTH

United States

As of May 1990, the ICC had received 68 requests to increase intrastate rates. Increases were significant, ranging from 25 to 40 percent. These requests were all granted, in the main because the carriers' intrastate fares were lower than comparable interstate fares. Without a valid, cost-based justification for the differential, the lower intrastate fares have been judged to impose an undue burden on interstate commerce.

Deregulation led the major operators to institute serious cost-cutting measures, including franchising, work-rule changes and the elimination of numerous routes they considered unprofitable. This action, along with other cost cutting measures such as the renegotiation of wage contracts, helped reduce costs in the late 1980s but not by enough to reverse a trend of decreasing profits. Industry revenues in the United States rose slightly from 1980

¹⁸ Federal Bureau of Transport Economics, *Intrastate Bus Services in New South Wales: Trial Entry Liberalization*, Occasional Paper No. 85, 1987.

levels to roughly \$2.04 billion in 1989. The largest carriers established a number of discount fares, although fare increases occurred too. As a result of all this, the operating ratio (the ratio of operating costs to operating revenues, expressed as a percent) for "Class I" carriers remained virtually constant between 1980 and 1988, at approximately 94 percent. Figures from the ICC also show that the average operating ratio for the ten largest bus companies was 93.8 percent in 1988, deteriorating slightly to 94.8 percent in 1989.¹⁹ Thus while the industry's financial position stabilized, it remained in rather poor shape overall.

In more recent cost-cutting efforts, Greyhound Lines have shifted away from scheduled service to more profitable charter services; the company has given up certain low density markets to smaller bus companies and, in a highly controversial step, increased the hiring of non-union labour. The latter, together with fundamental disagreements over major concessions sought by management, has precipitated a major strike. Labour is entrenched and the dispute shows no signs of easing at the time of writing.

ICC Commissioner Borlaug Phillips recognizes financial stability as the one area in which deregulation has not achieved its aims. She and virtually all other observers believe however that in the absence of the pricing and service freedoms afforded by reform the situation would be much worse. Indeed, it must be recognized that the industry stands at an important disadvantage relative to its two major competitors. Intercity bus travel in the United States suffers a down-at-the-heels image. American comedian Jay Lenno quipped recently that a Greyhound bus, "is like a travelling bad neighbourhood." Indeed, many middle-class travellers would not even consider bus as a mode of transportation and today it is used disproportionately by the unemployed, the poor, and elderly and disabled people without access to a private car. Moreover, throughout much of the 1980s, the price of gasoline remained relatively low, thereby encouraging continued reliance on the automobile. Price competition in the airline industry has been intense, further undercutting bus fares in long-haul markets and some short-haul markets as well.

¹⁹ ICC Press Release No. 90-54 April, 11 1990.

The critical importance of the airline industry in shaping the financial fortunes of the intercity bus trade was apparent in 1987 and 1988, a period in which airline fares surged. A total of 22 million passengers used Greyhound services in 1988, up ten percent from 1987, and sales increased 11 percent, to \$924 million. Greyhound passenger traffic jumped 20 percent in the first quarter of 1989. Later in 1989, when discount air fares began to appear again in the United States, Greyhound suffered immediate and sustained reductions in passenger traffic.²⁰ Losses occurred against a background of major capital investments on the part of Greyhound to clean and upgrade its terminals, construct new intermodal facilities in major cities and, through intense advertising, to improve the image of intercity bus transportation.

Britain

British Coachways was intended to provide a high speed, no frills, network service at low fares (often at 50 percent of the pre-deregulation National Express level). The public sector replied by reducing fares (and by improving service quality). In fact, National Express used aggressive price competition to recapture its dominant position in the British market following the initial in-roads made by the private consortium discussed above.

Button and Pearman argue that the pattern outlined above is almost exactly what one would have anticipated in a perfectly contestable market. National Express, by providing a network of services, can cope with the costing problems associated with markets where, because of the nature of the infrastructure, demand tends to be concentrated in one direction (ie, into London) but diffuse in the other. In a situation where entry is restricted, however, the incentive for efficiency is weak and thus costs drift up. Deregulation permitted new entry at fare levels potentially profitable to the private operators if load factors could be pushed up. Competition, however, brought a response from National Express (and from the railways which fought back with innovative pricing policies of their own) both in terms of lower fares and improved service. The economies

²⁰ Business Week, June 19, 1989, page 53.

of scope enjoyed by National Express permitted the market on most routes to be recaptured from the independents. The threat of possible new entrants would appear, however, to have prevented National Express from raising fares once a monopoly position had been established.

Studies of the 1987 trial in New South Wales²¹ indicate a 25 percent reduction in fares as a result of greater competition. Evidence of destructive competition or financial instability did not emerge. Passenger traffic literally doubled over the period of the trials, with on-board surveys signifying that new bus users were drawn largely from other modes (rail and private car). Impacts on mobility are thus unclear, although benefits in the form of reduced auto emissions may have arisen.

NETWORK COVERAGE AND THE LEVEL OF SERVICE

United States

Although there have been service reductions since 1982, the intercity bus industry continues to provide extensive service throughout the United States. According to the American Association of State Transportation and Highway Officials, about 4,000 communities lost intercity bus service between the start of regulatory reform in 1982 and the Summer of 1988.²² The ICC reports, however, that as of May 1990, it had received 75 petitions to review applications to abandon interstate routes (nearly all of which were granted).²³ The difference is in intrastate routes that are not federally controlled. The vast majority of the decline is thus a continuation of past trends in the decline of the intrastate bus industry.

²¹ op. cit, Federal Bureau of Transport Economics, Occasional Paper 85.

²² Statement Before the Surface Transportation Subcommittee of the Senate Committee on Commerce, Science, and Transportation, *Relating to Intercity Passenger Bus Service*, presented by Lawrence J. Harman, August 25, 1988.

²³ Interstate Commerce Commission.

In contrast to the 75 interstate abandonment petitions received by the ICC, Commissioner Borlaug Phillips has noted that during the 1970s, when strict entry and exit regulations were in place, 1,800 communities lost bus interstate service.²⁴ Moreover, many analysts believe that without regulatory reform, more bus companies would have experienced bankruptcy with even more rapid decline in the number of places served.

The Greyhound-Trailways merger has led to a development that the authors of the 1982 Act hoped would occur, namely the commencement of rural feeder operations. Greyhound's "rural connection" which operates in a manner similar to the airlines hub-and-spoke system, uses vans to provide service in areas where there is insufficient demand to warrant the use of full-sized vehicles. These feeder lines, which are linked to communities served directly by Greyhound, are operated by independent entrepreneurs who act as agents for Greyhound and receive a portion of the fare.

Impacts on Small Communities. The concern that regulatory reform in the U.S. intercity bus industry would threaten service to small communities has led to a number of studies, the most significant of which was authored by Mary Kihl,²⁵ Associate Dean for Research at Iowa State University. Following passage of the 1982 Act, Greyhound and Trailways dropped numerous routes considered unprofitable. This was possible because, unlike air deregulation in the United States, there was no program of subsidies for "essential bus service communities." A sizeable number of those locations dropped were small communities in rural areas, continuing a trend that was well underway in the 1970s. Kihl notes that providing regularly scheduled service to small communities that could generate two or three passengers a week was clearly not cost efficient. As a result, service to a large number of these small communities was cut during the 1970s. Service to others was retained in large part because of requirements of state regulated bodies and the ICC, requirements stemming from the Motor Carrier Act of 1935.

²⁴ op. cit, Borlaug Phillips.

²⁵ Mary Kihl, *The Impacts of Deregulation on Passenger Transportation in Small Towns*, *Transportation Quarterly*, Vol. 42, No. 2 April, 1988.

Overall, Kihl reports that the number of communities receiving bus service declined by an average of 3.3 percent a year from 1975 to 1982. Following deregulation, these trends accelerated to 9.2 percent from 1982-1983 and 11.6 percent from 1983-1984. For some states, the rate of abandonment was considerably higher. In Illinois, for example, the rate of abandonment from 1975-1982 was about 15 places a year, whereas since deregulation (1982-86), the rate was some 70 a year. Moreover, 27 rural counties lost service. Not surprisingly, bus service abandonments were concentrated among the smallest communities that, because of their size, typically received neither air nor rail service.²⁶

Most analysts agree that reductions in regular route service to small towns were inevitable in the absence of direct government subsidies, since the history of the railways suggests that the bus industry could not cross-subsidize small town losses with charter or package profits indefinitely. Many analysts argue, moreover, that rationalization could eventually strengthen and extend bus service to other small communities by reducing the drain caused by supporting extremely unprofitable service. The trends since the 1982 Act outlined above occurred during a period of recession and intense growth in intermodal (air and rail) competition, making it impossible to ascertain whether, and by how much, deregulation accelerated the decline in bus service to small communities. Kihl reports an dynamic at work whereby five of Iowa's public transit regions which are traversed by Jefferson Lines, a Class I intercity carrier, have developed individual plans to interface with Jefferson Lines at agreed stops. Like Greyhound's "rural connection," this type of public-private feeder agreement includes the use of demand response taxi service, a privately operated regularly scheduled bus, and other innovative approaches to the provision of feeder modes. Indeed, this kind of innovation is a hoped for outcome of deregulation. Nevertheless, the small community impacts of deregulation remain unclear; on balance, an existing trend appears to have been hastened and some replacement services have arisen through innovative market activity.

²⁶ Clinton Oster Jr. Is Deregulation Cutting Small Communities' Transportation Links? Rural Development Perspectives, June 1988.

The service reductions to small communities since deregulation have stimulated discussion of federal or state direct subsidy programs modeled on either the 10-year "essential service" guarantees in the U.S. Airline Deregulation Act of 1978 or the less specific and more open-ended commitment to Amtrak. In particular, Senator James Exon of Nebraska has upon various occasions introduced legislation to improve bus transportation services to rural areas, though without success. At the time of writing, the U.S. General Accounting Office is conducting a special study of rural intercity bus services on behalf of Senator Exon. The study is to include a survey of state responses to reduced service and specifically whether states are choosing to offer subsidy as a means of maintaining otherwise non-viable intercity bus services. The study is due to be completed by September, 1991.²⁷

Impacts on Transportation-Disadvantaged Groups. Cuts in bus passenger service are especially serious since people who take buses often lack access to other transportation. According to one recent study²⁸, communities in the United States abandoned by bus lines typically had smaller populations of elderly residents and the highest (or nearly highest) median income of the various community sub-groupings considered in the study. That losses in bus service have not fallen disproportionately on the poor or elderly is not surprising since these groups are among the most frequent users of intercity buses. Bus companies would not be expected to cut services to communities populated by high concentrations of their most faithful riders.

In a study of rural impacts in the state of Iowa, however, Mary Kihl indicates that while few individuals were affected by the withdrawal of routes, these small numbers of people do represent an important element of society in low populated rural states.

²⁷ Conversation on June 12, 1991 with Frank Mulvey, Head of Transportation Research, General Accounting Office, Washington DC.

²⁸ op. cit, Oster.

Britain

The effect of industry reorganization in Britain was an initial overall increase in the supply of express services (and a fall in the prevailing fare level throughout most of the network -- see Table 1). Additionally, the quality of service improved not simply in terms of the speed and frequency of service but also in terms of the comfort and range of facilities offered on vehicles. Onboard toilets became more common and, in some instances, premium services such as "Rapide" offered bus attendant services and video-TV entertainment. In 1978, less than 40 percent of newly registered vehicles were heavyweight and suited to high-speed freeway transportation whereas by 1982 the proportion had risen to 67 percent.

A marked increase in the use of intercity buses followed deregulation, although this has been attributed in part to the severe, long-lasting recession which may have caused a structural shift to less costly modes. National Bus experienced an increase of 186,250 passengers on routes between the major East Midlands centres and London; this was over a base figure of 175,000 passengers. Services between London and Manchester and London to Birmingham experienced an increase of about 200 percent in passenger journeys by the end of 1980 over the number a year earlier.²⁹ In some cases the increased number of passengers represented mainly generated traffic but there were also many instances of shifts in mode share with traffic switching from rail to express bus. Some 160 express buses, for example, carry more than 8,000 long distance commuters in and out of London on a daily basis, most of whom previously used rail.

Impact on Small Communities and Transportation-Disadvantaged Groups. As in the United States, studies in Britain found reduced numbers of areas with good access to intercity bus transportation after deregulation. A commission of inquiry reached the following conclusions four years after regulatory reform:

²⁹ op. cit, Button and Pearman.

TABLE 1: FARE CHANGES ON SELECTED ROUTES IN THE EAST MIDLANDS

| | | Index 1983=100 | | |
|----------------------|--------|----------------|------|------|
| | | 1978 | 1980 | 1983 |
| | | (post July) | | |
| Nottingham-London | Single | 142 | 89 | 100 |
| | Return | 135 | 84 | 100 |
| Derby-London | Single | 128 | 83 | 100 |
| | Return | 115 | 69 | 100 |
| Nottingham-Norwich | Single | 212 | 152 | 100 |
| | Return | 227 | 149 | 100 |
| Nottingham-Blackpool | Single | 109 | 135 | 100 |
| | Return | 243 | 134 | 100 |
| Nottingham-Oxford | Single | 147 | 97 | 100 |
| | Return | 146 | 96 | 100 |
| Nottingham-Skegness | Single | 167 | 111 | 100 |
| | Return | 159 | 107 | 100 |
| Nottingham-Clacton | Single | 157 | 110 | 100 |
| | Return | 148 | 107 | 100 |

(Source: Extracted from A. K. Cross and R. P. Kilvington, "Deregulation of the British Inter-Urban Travel Market", *Proceedings of Seminar M (Transport Policy) PTRC Summer Annual Meeting*, London, PTRC, 1983.)

Most of the areas that lost a service already had a low level of service, and most of the residents were unaffected by the loss because they made little use of the service anyway.³⁰

The limited experiment in New South Wales does not permit an analysis of network impacts. Studies do indicate, however, that the trials precipitated improved service frequency and schedule reliability, indicating an underlying potential for generally enhanced service levels with progressively more deregulation over time. Though attributed in the literature largely to the reduction in fare levels, the doubling in passenger traffic over the period of the trials would appear to stem at least in part from improvements in the level of service.

³⁰ European Council of Ministers, *Regulatory Reforms in the Transport Sector*, Madrid, 26th-27th May, 1987.

IV. CONCLUSIONS AND LESSONS FOR CANADA

In providing bus operators with greater operating flexibility, regulatory reform in the United States can be seen to have enabled the industry to become more efficient and more competitive. Bus operations have been streamlined, and disparities between comparable interstate and intrastate fares have been reduced. The Act also has encouraged innovative new services, which, it is hoped, will enhance the industry's competitive position in relation to other modes. Most analysts believe that today the industry is in a better position to respond to future challenges than it was before deregulation. Yet, in the words of Commissioner Borlaug Phillips,

... the adoption of innovative services may not be enough to ensure the long-term viability of this essential component of our nation's transportation system.³¹

In Britain, four conclusions align with those of the European Council of Ministers review of regulatory reforms in the transport sector, as follows:³²

- o The majority of intercity bus users, as well as many rail users, have benefited from a reduction in fares and improvements in the quality and frequency of service;
- o New services have been proposed on the main routes, giving users a wider range of choice;
- o Most services have been maintained, and seem to show a satisfactory level of profitability; and

³¹ op. cit.

³² op. cit., European Council of Ministers.

- o National Express has used valid new forms of competition to increase its traffic, principally through the exploitation of economies of scope (including product differentiation and innovation).

LESSONS FOR CANADA?

Clearly, the period since regulatory reform has been far more satisfactory for Britain than for the United States. What is apparent in these differences, however, is the extent to which they are the result of institutional factors unique to each nation. Any lessons for Canada therefore should be drawn from basic patterns of change that can be attributed to underlying economic forces that can be expected to apply here. The most pervasive perhaps is the reduction in fares experienced in Britain, even after the initial shake-out period left one dominant carrier in service on many routes. The essential contestability of the market, coupled with the introduction of eased market entry, appears to have provided the necessary conditions for lower fares, more innovation and better service. Like the United States, Canada must concern itself with the integrity of passenger transportation to small, rural communities. With adequate steps to protect their interests, the lesson from abroad is that a more liberal regulatory regime in Canada would serve the passenger transportation system well.

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